Math 181 **Midterm 1** **September 25, 1992**

NAME: (PRINT) ______________________________

SIGNATURE: ______________________________

SSN: ______________________________

The use of calculators is not permitted on this exam. Put all your work in the space provided. NO WORK – – NO CREDIT. Compute as many of the following integrals as time allows.

1. (15 pts) $\displaystyle\int \frac{x}{x^2 - 2x + 2}\, dx$

2. (15 pts) $\displaystyle\int \frac{dx}{(1+x^2)^2}$

3. (10 pts) $\displaystyle\int \log(x^2+1)$

4. (15 pts) $\displaystyle\int \frac{x^2+4x+2}{x(x+1)^2}\,dx$

5. (15 pts) $\displaystyle\int x\sin^{-1} x\,dx$

6. (15 pts) $\displaystyle\int \frac{x}{\sqrt{16-x^4}}\,dx$

7. (15 pts) $\displaystyle\int \frac{dx}{\sqrt{x^2-2x}}$